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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/559,765  | 12/07/2005  | Ikuo Yamamoto        | Q91901              | 8041             |
| 23373   | 7590        | 01/08/2010           | EXAMINER            |                  |
| SUGHRUE MION, PLLC<br>2100 PENNSYLVANIA AVENUE, N.W.<br>SUITE 800<br>WASHINGTON, DC 20037 |             |                      | PENG, KUO LIANG     |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 1796                |                  |
|   |             |                      | NOTIFICATION DATE   | DELIVERY MODE    |
|   |             |                      | 01/08/2010          | ELECTRONIC       |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com  
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### Office Action Summary

**Application No.**

10/559,765

**Applicant(s)**

YAMAMOTO ET AL.

**Examiner**

Kuo-Liang Peng

**Art Unit**

1796

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 9/9/09 Amendment.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1.5-9.11 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1.5-9.11 and 14-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-06)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The Applicants' amendment filed September 9, 2009 is acknowledged. Claims 2-4, 10 and 12-13 are deleted. Claims 1 and 5 are amended. Now, Claims 1, 5-9, 11 and 14-16 are pending.
2. Claim rejection(s) under 35 USC 112 in the previous Office Action (Paper No. 20090606) is/are removed.
4. Claim rejection(s) under 35 USC 102 in paragraph 4 of the previous Office Action (Paper No. 20090606) is/are removed.
5. The text of those sections of Title 35, U.S. code not included in this action can be found in prior Office Action(s).

#### ***Claim Rejections - 35 USC § 112***

6. Claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 7-9 recite the limitation "the silicon-containing polymer as the second polymer" in Claims 7 (lines 1-2) and Claim 9 (line 2). There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

7. Claims 1, 5-9, 11 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP472 (JP 63-101472) in view of Ohmori (US 5 021 501).

JP472 discloses a surface treatment agent for **fabrics** made of synthetic or natural fibers comprising 1) a fluorine-containing water/oil repellant and 2) a polysiloxane. (page 2, upper right column to lower right column and page 3, lower right column) The amount of the polysiloxane is illustrated in Examples. The fluoro-containing water/oil repellent is derived from a **fluoroacrylate**, a vinyl-containing **siloxane monomer** and a **fluorine/silicon-free** monomer. (page 2, lower right column to col. 3, upper left column) JP472 is silent on the employment of the claimed  **$\alpha$ -substituted** fluoroacrylate. However, Ohmori teaches the use of, in composition A), a fluoropolyacrylate prepared from a monomer mixture containing an  **$\alpha$ -substituted** fluoroacrylate represented by formula (1) in a

**water/oil repellent** composition (Composition B) for treating **carpet, fabrics (textiles)** such as skirts, curtains, etc. (col. 1, lines 29-50, col. 2, line 25 to col. 3, line 13 and col. 7, lines 24-44). Additional monomer such as  $\text{CH}_2=\text{C}(\text{CH}_3)\text{COO}-\text{CH}_2\text{CH}_2\text{CH}_2\text{Si}(\text{OCH}_3)_3$  can be included in the monomer mixture. (col. 3, lines 6-19) The amounts of these two components are described in col. 3, lines 33-38. Ohmori further teaches the use of , in composition B, a fluoropolyacrylate prepared from a monomer mixture containing i) an  **$\alpha$ -substituted** fluoroacrylate containing **trimethylsilyl** or **trimethylsilylpropyl** group represented by formula (3), ii) an  **$\alpha$ -substituted** fluoroacrylate represented by formula (4), and iii) an monomer free of fluorine and silicone such as ethylene, propylene, acrylates, methacrylates, in a water/oil repellent composition for treating **carpet, fabrics (textiles)** such as skirts, curtains, etc. The amounts of the components are also illustrated. (col. 1, line 51 to col. 2, line 18, col. 3, lines 1-19, col. 3, line 57 to col. 5, line 50 and col. 7, lines 24-44) The motivation for utilizing the specific  **$\alpha$ -substituted** fluoroacrylates is to afford tough coatings exhibiting **superior adhesion** to the article to be treated as compared to the conventional water/oil repellent compositions. (col. 1, lines 23-26 and col. 7, lines 37-44) In light of the benefit, it would have been

obvious to incorporate Ohmori's fluoropolyacrylate into JP472's composition with expected success. Especially, Ohmori is in the same field as that of JP472's endeavor.

For Applicants' argument (Remarks, page 8, 3<sup>rd</sup> to 5<sup>th</sup> paragraphs), Examiner disagrees because Ohmori does teach the use of an  $\alpha$ -**substituted** fluoroacrylate containing **trimethylsilyl** or **trimethylsilylpropyl** group represented by formula (3), *supra*.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the

mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Seidleck, can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

klp  
December 31, 2009

/Kuo-Liang Peng/  
Primary Examiner, Art Unit 1796